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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/891,242	06/27/2001	Robert Alexander Keiller	1263.1771	1533

5514 7590 11/05/2004

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EXAMINER

HARPER, V PAUL

ART UNIT PAPER NUMBER

2654

DATE MAILED: 11/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/891,242

Applicant(s)

KEILLER, ROBERT ALEXANDER

Examiner

V. Paul Harper

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,6,7,10-23,25-30,33,34,36-41 and 43-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,6,7,10-23,25-30,33,34,36-41 and 43-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-3, 11-19, 23, 25-30, 36-41 and 52-55 are rejected under 35

U.S.C. 102(b) as being anticipated by Buchner (European Patent Application EP 0 911 808 A1).

Regarding **claim 1**, Buchner discloses a speech interface in a home network environment that includes a speech recognizer (Fig. 1, item 3), a control apparatus (Fig. 1, item 4) and network devices (items 11). Buchner's system comprises: the speech unit keeps track of devices connected to the network (col 13, lines 20-30; Figure 10), which corresponds to "detecting means for detecting the processor-controlled machine"; the speech unit notifies a user that a new device is available (col. 13, lines 40-45), which corresponds to "output means for outputting a welcome message in a case where the detecting means detects the processor-controlled machine"; the network device send its user-network command list, vocabulary and grammar (col. 13, lines 30-40), which corresponds to "recogniton grammar information receiving means for receiving recognition grammar information from the processor-controlled machine in a case where the detecting means detects the processor-

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controlled machine”; a physical layer to a home network bus on the network device (16) (col. 7, lines 28-30, Figure 2) that receives messages (instructions) from the speech unit using grammar information received from the device (col. 7, lines 33-37, col. 13, line 37-41) necessarily supporting machine dialog over the network, which corresponds to “machine dialog interpretable instruction receiving means for receiving machine dialog interpretable instructions derived from speech data processed by the speech processing apparatus using the recognition grammar information”; a device interface (Figure 2 (16)) that can transfer command data (including vocabulary, grammars and commands that can support spoken with necessary machine dialog) from a network device (col. 5, lines 14-17) to a memory (13) for holding all the user-network-commands to control the network device (col. 7, lines 46-50) and a central processing unit that can send and receive messages to and from the speech unit (col. 7, lines 32-55, Figure 4, (41) and (11)), which corresponds to “device interface means for communicating with the processor-controlled machine to receive from the processor-controlled machine function information identifying the functions available on that processor-controlled machine and machine dialog information identifying a machine dialog compatible with the processor-controlled machine for enabling the control apparatus to cause the processor-controlled machine to carry out at least one of the available functions”; the ability to download vocabularies and commands stored in memory (13) to the extended grammar section (7d) in the speech unit for a particular network device to extend the machine and spoken dialog capability (col. 5, lines 14-17, col. 7, lines 50-56), which corresponds to “dialog determining means for determining, from the machine dialog information

provided by the processor-controlled machine, the machine dialog to be used by the control apparatus for communicating with the processor-controlled machine”; a spoken dialog means allowing a user to interact with a network device with necessary machine dialog (§ 00027 and 0028, Figures 2, 3, 4 and 9), which corresponds to “dialog interpreting means for interpreting received machine dialog interpretable instructions derived from speech data processed by the speech processing apparatus using the determined machine dialog to produce interpreted instructions”; a basic set of user-network-commands (§ 0021) and a list of user-network-commands to control a network device defined by grammars stored in memory that can be downloaded (§ 0028), which corresponds to “function availability determining means for determining from the function information received by the device interface means whether or not the processor-controlled machine is capable of carrying out a function represented by the interpreted instructions”; network communication (Fig. 9), which corresponds to “machine communication means for communicating with the processor-controlled machine using the determined machine dialog on the basis of the interpreted instructions so enabling communication of information relating to the carrying out of a function by the processor-controlled machine between the processor-controlled machine and the control apparatus in the event that the function availability determining means determines that the processor-controlled machine is capable of carrying out that function”; acoustic communication (col. 1, lines 44-47, Fig. 9, § 0028), which corresponds to “user communication means for enabling communication with the user on the basis of at least one of the interpreted instructions information provided by the

function availability determining means, and information provided by the machine communication means, thereby enabling the user to conduct a spoken dialog with the processor-controlled machine via the speech processing apparatus and the control apparatus to instruct the carrying out of a function by the processor-controlled machine”.

Regarding **claim 2**, Buchner discloses everything claimed, as applied above (see claim 1); in addition, Buchner discloses a means for locating a device on a network by its ID (col. 14, lines 30-33, Figure 3) and commands such as media descriptors that can be acquired from other sources (col. 14, lines 34-55), which corresponds to “the control apparatus is connectable to a network and the dialog determining means is arranged to determine the location on the network of the determining for that machine dialog.”

Regarding **claim 3**, Buchner discloses everything claimed, as applied above (see claim 1); in addition, Buchner discloses a accessible memory in the network device where a list of control-network-commands is stored (col. 7, lines 40-45), which corresponds to “storing means for causing the determining machine dialog to be stored in a dialog store of the control apparatus.”

Regarding **claim 11**, Buchner discloses everything claimed, as applied above (see claim 1); in addition, Buchner discloses dialog states with corresponding necessary internal states (Figures 9-13) that are determined by the sequence of commands sent (col. 10, line 41-col. 16. line 23), which correspond to “a machine dialog has a number of machine dialog states and the machine communication means is arranged to control the machine dialog state in accordance with the received machine dialog interpretable instructions.”

Regarding **claim 12**, Buchner discloses everything claimed, as applied above (see claim 1); in addition, Buchner discloses that when a device is newly connected to the network it can send its specific set of grammars to the speech unit (col. 11, lines 49-52) and that during a dialog the machine will have a particular dialog state (Fig. 9-13, see "network devices"), which corresponds to "the machine communication means is arranged to supply to the speech processing apparatus information relating to speech recognition grammar to be used for processing speech data in accordance with a machine dialog state."

Regarding **claim 13**, Buchner discloses everything claimed, as applied above (see claim 1); in addition, Buchner discloses a system where the user inputs commands by microphone and the signals from the microphone go to a signal processing unit and then onto a CPU for processing (col. 6, lines 18- 24, Figure 1), which corresponds to "audio data receiving means for receiving speech data and audio data transmitting means for transmitting received speech data to the speech processing apparatus."

Regarding **claim 14**, Buchner discloses everything claimed, as applied above (see claim 1); in addition, Buchner discloses a network connection ((5), (6), and (10) of Figure 1) allowing the speech unit to communicate with other devices (col. 6, lines 44-47, Figure 1, (10)), which corresponds to "network interface means for communicating with the speech processing apparatus over a network."

Regarding **claim 15**, Buchner discloses everything claimed, as applied above (see claim 1); in addition, Buchner discloses a network connection from a network device (41) to other network devices attached to appliances (Figure 4), which

corresponds to "network interface means for communicating with the processor-controlled machine over a network."

Regarding **claim 16**, Buchner discloses everything claimed, as applied above (see claim 1); in addition, Buchner discloses a wireless network where all the devices can communicate with each other via built-in transmitters and receivers (col. 8, lines 53-56, Figure 5), which corresponds to "remote communication means for communicating with a least one of the speech processing apparatus and the processor controlled machine."

Regarding **claim 17**, Buchner discloses everything claimed, as applied above (see claim 1); in addition, Buchner discloses a network device with the speech control unit built-in (col. 8, 34-35, Figure 4, (41)), which corresponds to "a control apparatus and an audio input device."

Regarding **claim 18**, Buchner discloses everything claimed, as applied above (see claim 1); in addition, Buchner's system comprises: a speech recognizer with a vocabulary and a set of knowledge-bases (or grammars) (col. 4, lines 1-4), which corresponds to "a speech recognizing means for recognizing speech in received audio data using at least one speech recognition grammar;" a converter for converting a user command into a user-network-command (i.e., a command to be interpreted by the network device) (col. 4, lines 4-7), which corresponds to "speech interpreting means for interpreting recognized speech to provide machine dialog interpretable instructions;" and a means of transporting the command to the device (col. 4, lines 5-7, Figures 1 and

2) which corresponds to “a transmitting means for transmitting the dialog interpretable instructions to the machine communication means.”

Regarding **claim 19**, Buchner discloses everything claimed, as applied above (see claim 1); in addition, Buchner discloses: software and a CPU for device control (Figure 2, (15) and (12)), which corresponds to “machine control circuitry for carrying out at least one function and a processor for controlling the machine control circuitry”; memory used for processing and storage of a list of control-network commands for a network device (col. 7, lines 39-59, Figure 2), which corresponds to “storing means for storing information relating to a device class defining a machine dialog to be used by the control apparatus with the process-controlled machine and functions available on the machine”; and vocabularies and grammars to control the network device (necessarily supporting the machine dialog) stored in memory (13) that can be downloaded into the extended memory (col. 7, lines 50-56), which corresponds to a “means for providing the machine function information and the machine dialog information to the control apparatus for enabling the dialog determining means to determine the machine dialog to be used by the control apparatus with the processor controlled machine.”

Regarding **claim 23**, Buchner discloses everything claimed, as applied above (see claim 19); in addition, Buchner discloses a network device integrated with a speech unit (41) used to communicate with processor controlled network devices connected to appliances, which corresponds to “a network comprising a processor-controlled machine.”

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Regarding **claim 25**, Buchner discloses everything claimed, as applied above (see claim 23); in addition, Buchner discloses a system with a separate speech unit (Figure 3, (11)), which corresponds to "a separate audio input device."

Regarding **claim 26**, Buchner discloses everything claimed, as applied above (see claim 23); in addition, Buchner's system comprises: a microphone (1) connected to a speech unit (Figure 1), which corresponds to "means for receiving audio data representing speech by a user"; a speech recognizer with a vocabulary and a set of knowledge-bases (or grammars) (col. 4, lines 1-4), which corresponds to "a speech recognition means for recognizing speech in received audio data using at least one speech recognition grammar;" a converter for converting a user command into a user-network-command (i.e., a machine dialog) (col. 4, lines 4-7), which corresponds to "speech interpreting means for interpreting recognized speech to provide the machine dialog interpretable instructions;" and a means of transporting the command to the device (col. 4, lines 5-7, Figures 1 and 2) which corresponds to "a transmitting means for transmitting the machine dialog interpretable instructions to the dialog communication means."

Regarding **claim 27**, Buchner discloses everything claimed, as applied above (see claim 26); in addition, Buchner's system includes commands for media descriptors which return information related to specific devices (col. 14, lines 34-36), which corresponds to "a look-up service connectable to the network."

Regarding **claim 28**, this claim has limitations similar to claim 1 and is rejected for the same reasons.

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Regarding **claim 29**, Buchner discloses everything claimed, as applied above (see claim 28). This claim is rejected for the same reasons given in the corresponding apparatus claim, claim 2.

Regarding **claim 30**, Buchner discloses everything claimed, as applied above (see claim 28). This claim is rejected for the same reasons given in the corresponding apparatus claim, claim 3.

Regarding **claim 36**, Buchner discloses everything claimed, as applied above (see claim 28). This claim is rejected for the same reasons given in the corresponding apparatus claim, claim 11.

Regarding **claim 37**, Buchner discloses everything claimed, as applied above (see claim 28). This claim is rejected for the same reasons given in the corresponding apparatus claim, claim 12.

Regarding **claim 38**, Buchner discloses everything claimed, as applied above (see claim 28). This claim is rejected for the same reasons given in the corresponding apparatus claim, claim 13.

Regarding **claim 39**, Buchner discloses everything claimed, as applied above (see claim 28). This claim is rejected for the same reasons given in the corresponding apparatus claim, claim 14.

Regarding **claim 40**, Buchner discloses everything claimed, as applied above (see claim 28). This claim is rejected for the same reasons given in the corresponding apparatus claim, claim 15.

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Regarding **claim 41**, Buchner discloses everything claimed, as applied above (see claim 28). This claim is rejected for the same reasons given in the corresponding apparatus claim, claim 16.

Regarding **claims 52, 53, 54, and 55**, these claims have limitations similar to those found in claim 1 and are rejected for the same reasons.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 6, 7, 20-22, 33, 34, and 43-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buchner in view of well known prior art (MPEP 2144.03).

Regarding **claim 6**, Buchner in view of well known prior art disclose everything claimed, as applied above (see claim 49); in addition, Buchner discloses features described in the claim 2 rejection that correspond to the limitations listed in this claim.

Regarding **claim 7**, Buchner in view of well known prior art disclose everything claimed, as applied above (see claim 49); in addition, Buchner discloses features described in the claim 3 rejection that correspond to the limitations listed in this claim.

Regarding **claim 20**, Buchner in view of well known prior art disclose everything claimed, as applied above (see claim 49); in addition, Buchner discloses: software and a CPU for device control (Figure 2, (15) and (12)), which corresponds to “machine control circuitry for carrying out at least one function; and a processor for controlling the machine control circuitry”; a memory used for processing and storage of a list of control-network commands (i.e., machine dialogs) where the commands might be device dependent (col. 7, lines 39-55, Figure 2), which corresponds to “storing means for storing a device class for the process-controlled machine the device class defining a machine dialog to be used with the processor-controlled machine and functions available on the machine”; and a means for locating a device on a network by its ID (col. 14, lines 30-33, Figure 3), which corresponds to a “means for supplying the device class to the control apparatus.”

Regarding **claim 21**, Buchner discloses everything claimed, as applied above (see claim 19); in addition, Buchner discloses a system that uses a speech recognizer for controlling different consumer devices including mobile telephones, PCs and printers (col. 1, lines 7-10, col. 1, lines 42-47), but Buchner’s list of devices controlled does not include photocopying or facsimile functions. However, the examiner takes official notice of the fact that the use of a control system for control of photocopying or facsimile devices was well known in the art.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to expand the list of device functions supported by

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Buchner to include photocopying and facsimile functions, since these functions were commonly found in home offices.

Regarding **claim 22**, Buchner discloses everything claimed, as applied above (see claim 19); in addition, Buchner discloses a system that uses a speech recognizer for controlling different consumer devices including televisions, printers, heaters and camcorders (col. 1, lines 7-10, col. 1, lines 42-47), but Buchner's list of devices does not include video cassette recorders, microwave ovens, digital cameras, photocopiers, lighting system, and a heating system. However, the examiner takes official notice of the fact that the use of a control system for control of videocassette recorders, microwave ovens, digital cameras, a photocopiers, or lighting systems was well known in the art.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to expand the list of devices supported by Buchner to include all of those listed in claim 22, since these functions were commonly found in the home.

Regarding **claim 33**, Buchner in view of well known prior art disclose everything claimed, as applied above (see claim 51). This claim is rejected for the same reasons given in the corresponding apparatus claim, claim 6.

Regarding **claim 34**, Buchner in view of well known prior art disclose everything claimed, as applied above (see claim 51). This claim is rejected for the same reasons given in the corresponding apparatus claim, claim 7.

Regarding **claims 43, 44, 45, 47 and 48**, Buchner or Buchner in view of well know prior art disclose everything claimed, as applied above (see claims 1, 28, 54, and 55); however, Buchner (or Buchner in view of well known prior art) does not specifically disclose "processor implementable instructions for configuring a processor to carry out a method in accordance with claim 1, or 28." However, the examiner takes official notice of the fact that programming a processor to execute control functions on a network was well known in the art.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to program a processor to perform the desired control functions on a network since this is a standard way to implement such operations.

Regarding **claim 46**, Buchner in view of well know prior art disclose everything claimed, as applied above (see claim 44); however, Buchner does not specifically disclose "a storage medium carrying a computer program product in accordance with claim 44." However, the examiner takes official notice of the fact that use of a storage medium with a processor was well known in the art.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made use a storage medium for storing the process specific code so as be able to load the necessary code on startup.

Regarding **claim 49**, Buchner teaches everything claimed, as applied above (see claim 1). In addition, this claim has limitations similar to those found in clam 19 and is rejected for the same reasons. Buchner does not specifically disclose the use of the JAVA reflection API to determine this information. However, the examiner takes official

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notice of the fact that the use of a JAVA reflection API for getting information about the current Java virtual machine was well known in the art.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the means for determining machine functions with the JAVA reflection API, since this API is a commonly used programming interface for determining information related to JAVA classes and objects.

Regarding **claims 50**, Buchner teaches everything claimed, as applied above (see claim 1); in addition, this claim has limitations similar to those found in claim 49 and is rejected for the same reasons.

Regarding **claims 51**, Buchner teaches everything claimed, as applied above (see claim 28); in addition, this claim has limitations similar to those found in claim 49 and is rejected for the same reasons.

3. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buchner in view of well known prior art and further in view of Hemphill (European Patent Application EP 0 854 418 A2), hereinafter referred to as Hemphill.

Regarding **claim 10**, Buchner in view of well known prior art teaches everything claimed, as applied above (see claim 49). But Buchner in view of well known prior art do not specifically disclose "a job listener registering means for registering a job listener to receive from the processor-controlled machine information relating to events occurring at the processor-controlled machine." However, the examiner contends that

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the concept of a "listening" signal being generated when data is available from a device was well known in the art, as taught by Hemphill.

Hemphill discloses a programmable distributed appliance control system. Hemphill's system includes the ability to generate a signal to an interface (65) when data is available from a consumer device (col. 7, line 55-65).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Buchner in view of well know prior art by providing a notification means from an appliance, as taught by Hemphill, for the purpose of providing a more rapid response when an appliance has data that needs to be transferred to the control device.

Response to Arguments

Applicant's arguments with respect to claims 1, 28, 52-55 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr V. Paul Harper whose telephone number is 703 305-4197. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 703 305-9645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



VPH/vph



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